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WorkLenz Predictive Intelligence for Risk Management

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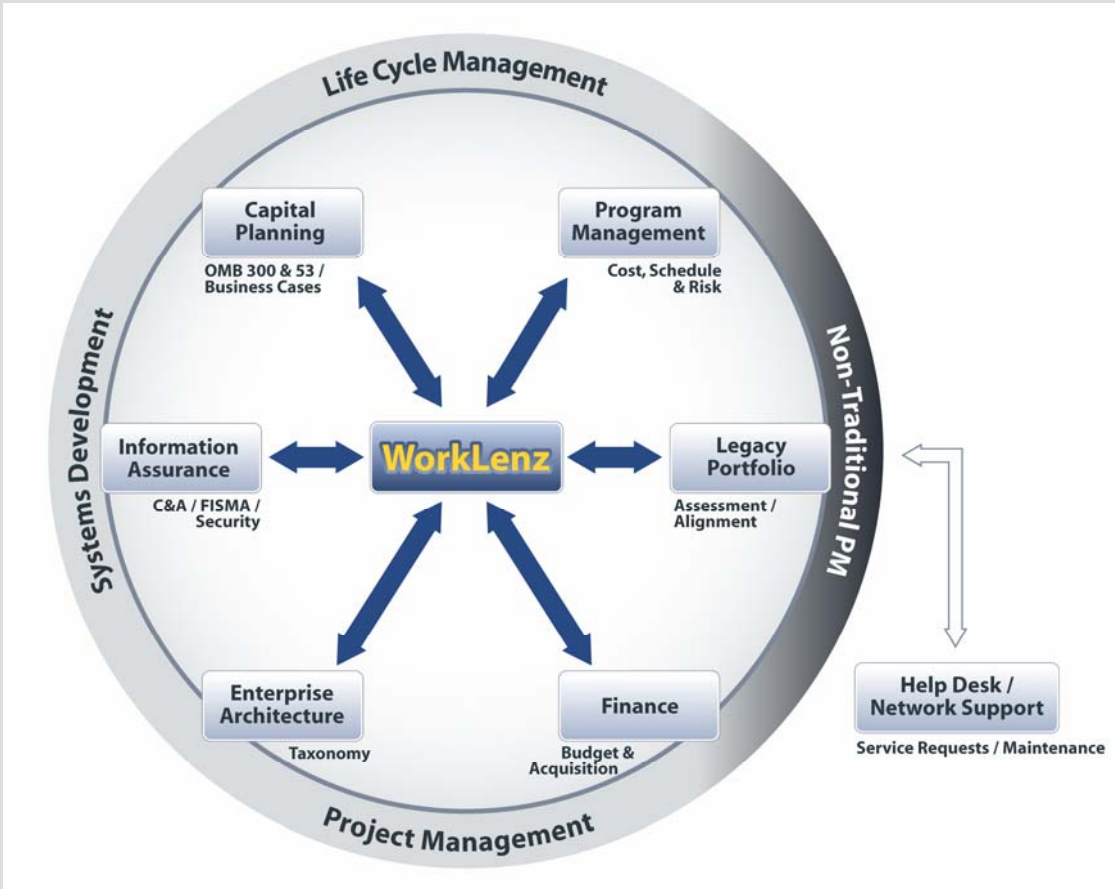
WorkLenz Overview



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Managing Risk in USAID ADS 596 and ADS 577

- "Risk is the potential for loss, harm, or danger in an operation."
- It is intended to help management:
  - identify and document risks;
  - prioritize them in terms of susceptibility;
  - and determine the adequacy of controls to manage those risks.
- "By properly managing risk, USAID can improve the effectiveness and efficiency of its operations, while reducing the likelihood of waste, loss, and mismanagement."

Why Identify Risks?

- More cost effective to prevent a potential risk than to react to the resulting problem
- Increases potential for *success*

If the risk is reported it is **"OUR"** problem and we will *work together* to resolve it.

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Who Identifies Risks?

- Portfolio Risks – PMO, BTEC
- Program Risks – Program Managers
- Project Risks
  - Project Sponsors: Clinger-Cohen, FEA, FISMA, Circular A-11
  - Project Managers: Cost, Schedule, Personnel, Influences
  - Risk Managers: All Aspects of Project, Influences
  - Project Team Members:
    - Task Deadlines
    - Dependencies
    - Technical
    - Product Quality & Functionality

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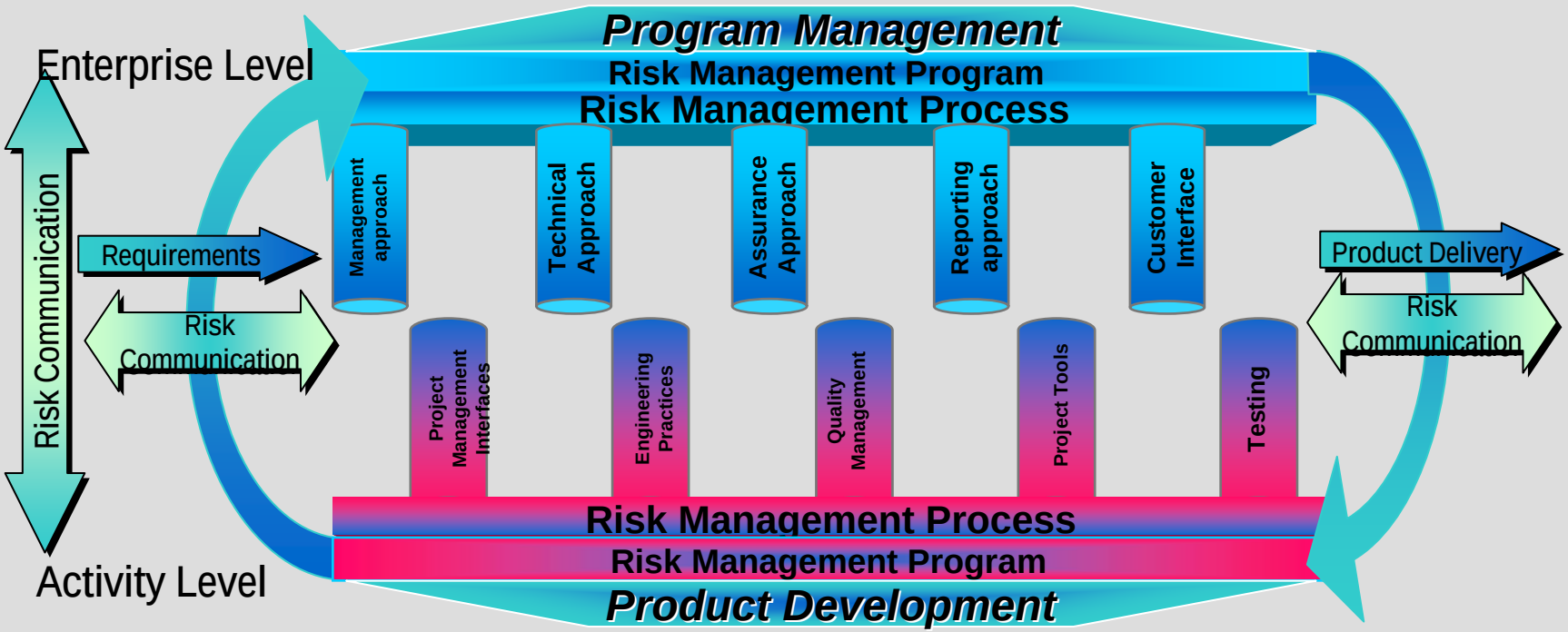
RM is an Integral Part of Project Management



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Risk Description

*Clearly Describe the Risk **Condition** and Identify the Project **Consequence** If the Risk Occurs*

Condition: Describes the key circumstance or situation causing concern, doubt, anxiety, or uncertainty

Consequence: Describe potential outcome if the risk transitions into a problem

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Risk Types

Risk Type Definition			
Risk Type	**Description**	**Recommended Probability**	**Recommended Consequence**
Schedule	Ability to meet the schedule targets and goals	6	6
Initial Costs	Costs for initial deployment may exceed initial forecasts	6	10
Life Cycle Costs	Life-cycle costs for deployment may exceed initial forecasts.	4	6
Technical Obsolescence	Technical approach will not evolve to support project or program requirements	6	6
Feasibility	Functional requirements may not be met by baseline software	6	8
Reliability of Systems	Repository tools which may not support technical requirements	4	6

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Risk Types

Risk Type Definition			
Risk Type	**Description**	**Recommended Probability**	**Recommended Consequence**
Dependencies and Interoperability	Decisions regarding the BT projects and funding of implementation could impact performance goals.	6	6
Surety (Asset Protection) Considerations	Protection of project and program assets	4	8
Risk of Creating a Monopoly for Future Procurements	Locked into a proprietary approach with no alternatives	4	6
Capability of Agency to Manage the Investment	Program/Project management may not be able to monitor and control schedule, costs, and risks for an investment	4	8
Overall Risk of Investment Failure	Dynamic requirements from oversight organizations, misunderstanding of capabilities and needs, lack of endorsement, support, and participation from senior management	4	8
Organizational and Change Management	Developing and implementing an approach that may require changes in processes, workflows and organizations	4	8
Business	Reliance of congressional and OMB approval of budgets.	4	6

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Risk Types

Risk Type Definition			
Risk Type	**Description**	**Recommended Probability**	**Recommended Consequence**
Data/Information	Replacement cost lost data/information, conversion cost of data/information	4	8
Technology	Consideration of evolving technology and ability to integrate current technology with future platforms	6	8
Strategic	OMB or congressional approach and direction that may impact project goals	10	6
Security	Unauthorized access to operational systems	2	8
Privacy	Unauthorized access to sensitive data	4	6
Project Resources	Level of involvement of program/project management staff for support and availability of subject matter expertise	6	8

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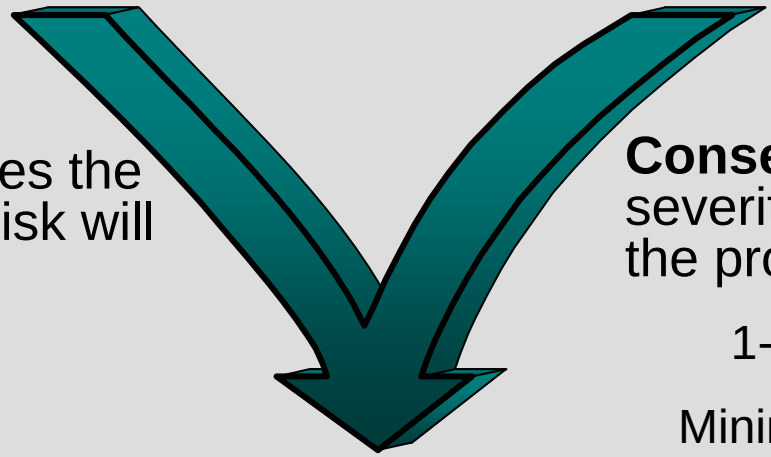
Risk Exposure

Probability identifies the likelihood that the risk will occur

1-10

Minimal - High



Consequence identifies the severity of the identified risk to the project

1-10

Minimal - High

Probability x Consequence = Risk Exposure

Quantitative Risk Analysis 101

Determining the Dollar Value of Risks

Quantitative Risk Analysis: A numerical analysis of the probability and impact of the highest risks on the project to:

- Determine cost and schedule reserves
- Identify risks requiring the most attention
- Create realistic and achievable cost, schedule or scope targets.

Expected Monetary Value (Dollar Value): The product of two numbers, probability and impact. Example:

Task	Probability	Impact	Expected Value
A	10%	$20,000	$2,000
B	30%	$45,000	$13,500
B	70%	$18,000	$12,600

Quantitative Risk Analysis 101

Determining the Dollar Value of Risks

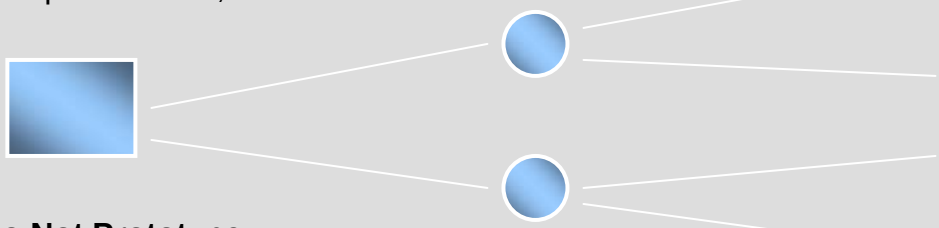
Decision Tree Analysis:

- Takes into account future events in trying to make a decision today
- Calculates the expected value in more complex situations
- Mutually Exclusive

Decision Tree Example – A Company is trying to determine if prototyping is worthwhile on the project. They have come up with the following impacts of whether the equipment works or fails when it is used. Based on the information provided, what is the expected value of your decision?

Prototype:

Setup Cost $200,000



Failure: 35% probability & $120,000 Impact

Pass: No impact

Failure: 70% probability & $450,000 impact

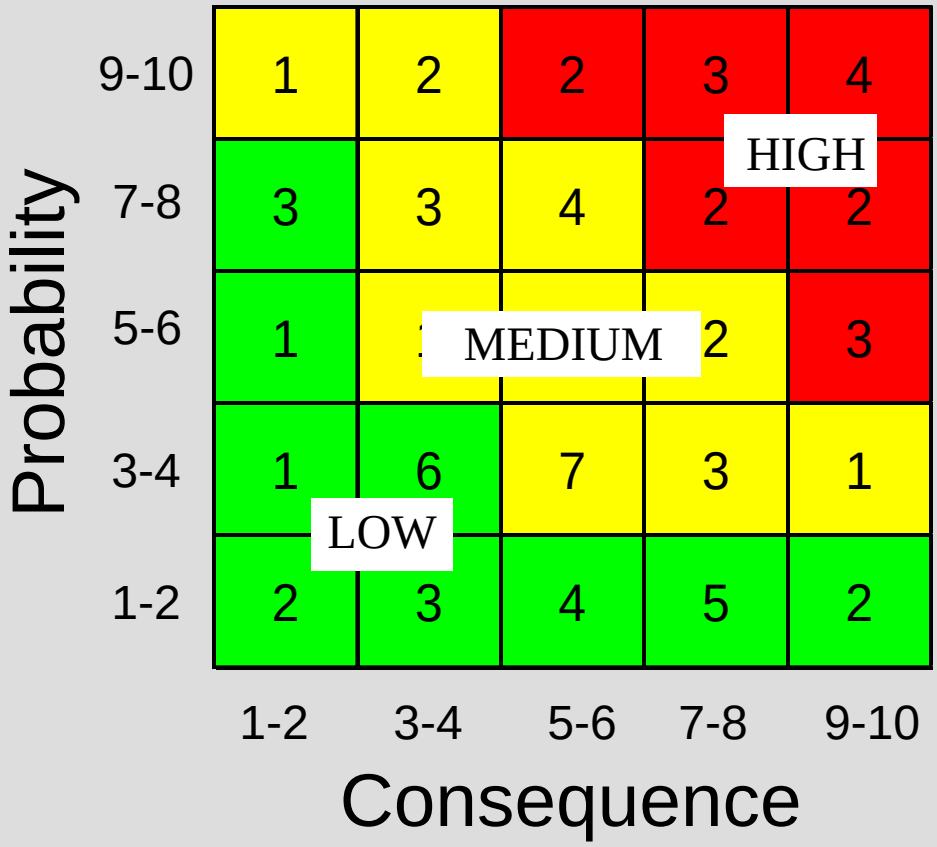
Pass: No impact

Do Not Prototype:

Setup Cost $0

Prototype	35% * $120,000 = $42,000 + $200,000 = **$242,000**
Do Not Prototype	70% * $450,000 = **$315,000**

Risk Exposure Matrix



Risk Level	Risk Level
LOW	30%
MEDIUM	50%
HIGH	20%

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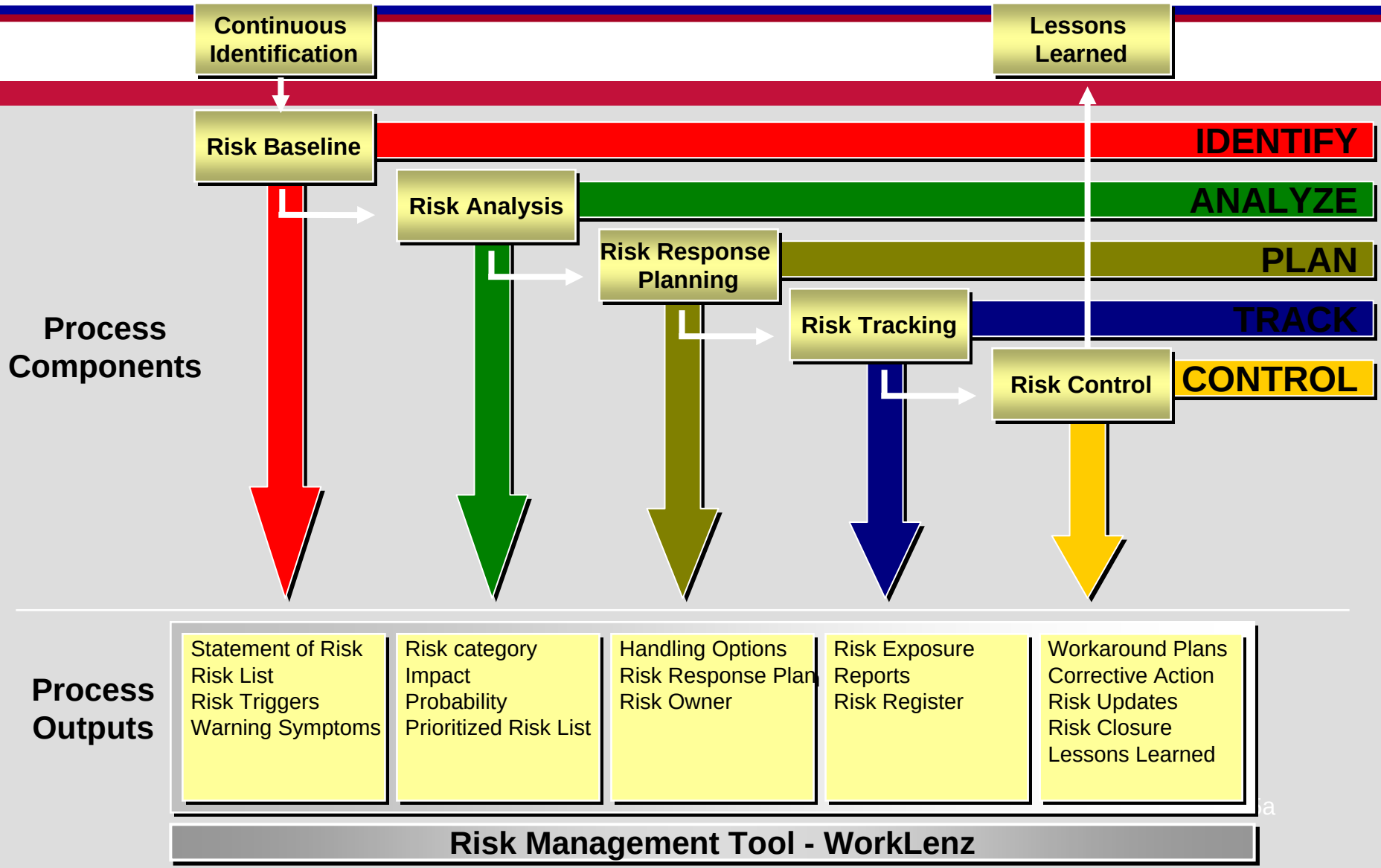
PMO Risk Management Approach:



Conclusion

- Risk Management Cycle – December
  - 3rd Day of the Month – Risk data is updated and current in WorkLenz
  - 5th Day of the Month – Create monthly report
  - 10th Day of the Month – Monthly report posted to PMO website